

Appl. No. 09/517,903

Amdt. dated October 15, 2003

Reply to Office Action of August 15, 2003

CURRENTLY PENDING CLAIMS

The listing of claims below replace all prior versions, and listings, of claims:

1           1.       (Original) Apparatus for use in a telephony system, comprising:  
2                   a digital interface for communicating with a stimulus device;  
3                   a packet interface for communicating with a packet-based network; and  
4                   a controller to receive stimulus control information from the digital interface and  
5       to encapsulate the stimulus control information into one or more packets for transmission over  
6       the packet-based network through the packet interface.

1           2.       (Original) The apparatus of claim 1, wherein the controller encapsulates the  
2       stimulus control information into an Internet Protocol packet.

1           3.       (Original) The apparatus of claim 1, wherein the digital interface includes a  
2       UART interface.

1           4.       (Original) The apparatus of claim 1, wherein the digital interface includes a time  
2       compression multiplex interface.

1           5.       (Original) The apparatus of claim 1, wherein the controller adds a destination  
2       address of a telephone switch system into the one or more packets.

1           6.       (Original) The apparatus of claim 1, wherein the controller adds a destination  
2       address of a stimulus telephone into the one or more packets.

1           7.       (Original) The apparatus of claim 1, wherein the stimulus control information is  
2       according to a first stimulus language, and wherein the stimulus control information remains in  
3       the first stimulus language after encapsulation.

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1           8.       (Original) The apparatus of claim 1, wherein the controller encapsulates the  
2 stimulus control information without translating the stimulus control information into a different  
3 form.

1           9.       (Original) The apparatus of claim 8, wherein the controller encapsulates the  
2 stimulus control information by adding header information according to a network protocol.

1           10.      (Original) The apparatus of claim 9, wherein the network protocol header  
2 information includes an Internet Protocol header.

1           11.      (Original) The apparatus of claim 9, wherein the controller adds further header  
2 information according to a transport protocol.

1           12.      (Original) The apparatus of claim 11, wherein the further header information  
2 includes a User Datagram Protocol header.

1           13.      (Original) The apparatus of claim 1, wherein the controller also scrambles the  
2 stimulus message before encapsulation.

1           14.      (Original) The apparatus of claim 1, wherein the controller encrypts the one or  
2 more packets.

1           15.      (Original) The apparatus of claim 1, further comprising a receiver to receive the  
2 one or more packets, the receiver including an element to decapsulate the one or more packets to  
3 extract the stimulus control information.

1           16.      (Original) The apparatus of claim 15, wherein the receiver is associated with a  
2 second stimulus device, and wherein the extracted stimulus control information is in a native  
3 stimulus language of the second stimulus device.

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1           17.   (Currently Amended) The apparatus of claim 1, wherein the stimulus control  
2 information includes at least one of hook state information, ~~display information~~, and key press  
3 event information.

1           18.   (Original) The apparatus of claim 1, wherein the stimulus control information  
2 includes a command selected from the group consisting of a handset volume control command, a  
3 handset connect/disconnect command, an audio stream open/close command, and a ringer  
4 activation command.

1           19.   (Cancelled)

1           20.   (Original) A method for use in a telephony system, comprising:  
2               communicating stimulus control information with a stimulus device through a  
3 first interface and packet information with a packet-based network through a packet interface;  
4               encapsulating stimulus control information received from the first interface; and  
5               transmitting the encapsulated stimulus control information as at least one packet  
6 to the packet interface.

1           21.   (Previously Amended) The method of claim 20, further comprising:  
2               decapsulating one or more packets received from the packet interface and  
3 containing stimulus control information; and  
4               transmitting the stimulus control information of the decapsulated one or more  
5 packets to the first interface.

1           22.   (Original) The method of claim 20, wherein the stimulus control information is in  
2 a native stimulus language, and wherein encapsulating the stimulus control information includes  
3 inserting the stimulus control information in its native stimulus language into a payload of the at  
4 least one packet.

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1           23.   (Original) The method of claim 22, wherein encapsulating the stimulus control  
2 information includes adding a network protocol header to the stimulus control information.

1           24.   (Original) The method of claim 23, wherein encapsulating the stimulus control  
2 information includes adding an Internet Protocol header.

1           25.   (Original) The method of claim 24, wherein encapsulating the stimulus control  
2 information further includes adding a User Datagram Protocol header.

1           26.   (Original) The method of claim 20, further comprising scrambling the stimulus  
2 control information before encapsulating.

1           27.   (Original) The method of claim 20, further comprising encrypting the at least one  
2 packet.

1           28.   (Original) An article including one or more machine-readable storage media  
2 containing instructions for call control in a telephony system, the instructions when executed  
3 causing a device to:

4                   receive data according to a stimulus protocol from a first interface;  
5                   encapsulate the data into one or more packets; and  
6                   communicate the one or more packets to a packet-based data network.

1           29.   (Original) The article of claim 28, wherein the one or more storage media contain  
2 instructions that when executed causes the device to:

3                   receive a packet containing data according to the stimulus protocol;  
4                   decapsulate the packet; and  
5                   communicate the data according to the stimulus protocol to the first interface.

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1           30.     (Original) A data signal embodied in a carrier wave and containing instructions  
2     for call control in a telephony system, the instructions when executed causing a device to:  
3                 receive at least one packet containing a stimulus message according to a first  
4     language;  
5                 decapsulate the at least one packet to extract the stimulus message according to  
6     the first language; and  
7                 send the stimulus message according to the first language to a stimulus device.

1           31.     (Original) The data signal of claim 30, further containing instructions that when  
2     executed causes a device to:  
3                 receive a stimulus message according to the first language from the stimulus  
4     device; and  
5                 encapsulate the stimulus message according to a first language into at least one  
6     packet.

1           32.     (Cancelled)

1           33.     (Cancelled)

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1           34.   (Original) An apparatus for use in a telephony system, comprising:  
2                   means for receiving a stimulus message from a stimulus device;  
3                   means for encapsulating the stimulus message into at least one packet; and  
4                   means for transmitting the at least one packet to a packet-based network.

1           35.   (Previously Presented) The apparatus of claim 1, further comprising an interface  
2   card adapted to be inserted into a slot of the stimulus device, the interface card comprising the  
3   digital interface, the packet interface, and the controller.

1           36.   (Previously Presented) The apparatus of claim 1, wherein the digital interface is  
2   adapted to exchange the stimulus control information with the stimulus device.

1           37.   (Previously Presented) The apparatus of claim 1, wherein the stimulus control  
2   information contains a command according to a stimulus protocol selected from the group  
3   consisting of off-hook, on-hook, handset volume control, handset connect, and handset  
4   disconnect.

1           38.   (Previously Presented) The apparatus of claim 1, further comprising a receiver to  
2   receive one or more inbound packets containing inbound stimulus control information, the  
3   controller to decapsulate the one or more inbound packets to extract the inbound stimulus control  
4   information.

1           39.   (Previously Presented) The apparatus of claim 38, wherein each of the one or  
2   more inbound packets contains a User Datagram Protocol (UDP) port number, the controller to  
3   determine from the UDP port number whether the corresponding inbound packet contains voice  
4   data or stimulus control information.

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1           40.   (Previously Presented) The method of claim 20, further comprising providing an  
2 interface card to be inserted into a slot of the stimulus device, the interface card having the first  
3 interface and the packet interface,

4                   wherein encapsulating the stimulus control information and transmitting the  
5 encapsulated stimulus control information and transmitting the encapsulated stimulus control  
6 information is performed by the interface card.

1           41.   (Previously Presented) The method of claim 20, wherein encapsulating the  
2 stimulus control information comprises encapsulating a command according to a stimulus  
3 protocol selected from the group consisting of off-hook, on-hook, handset volume control,  
4 handset connect, and handset disconnect.

1           42.   (Previously Presented) The method of claim 21, wherein each of the received one  
2 or more packets contains a User Datagram Protocol (UDP) port number, the method further  
3 comprising determining from the UDP port number whether the corresponding received packet  
4 contains voice data or stimulus control information.

1           43.   (Previously Presented) The article of claim 28, wherein encapsulating the data  
2 according to the stimulus protocol comprises encapsulating one of an off-hook stimulus  
3 command, on-hook stimulus command, handset volume control stimulus command, handset  
4 connect stimulus command, and handset disconnect stimulus command.

1           44.   (Previously Presented) The data signal of claim 30, wherein receiving the at least  
2 one packet containing the stimulus message comprises receiving the at least one packet  
3 containing stimulus message containing at least a command selected from the group consisting  
4 of off-hook, on-hook, handset volume control, handset connect, and handset disconnect.

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1           45.   (Previously Presented) The apparatus of claim 34, wherein, the stimulus message  
2           contains at least a command selected from the group consisting of off-hook, on-hook, handset  
3           volume control, handset connect, and handset disconnect.

1           46.   (Previously Presented) The apparatus of claim 34, further comprising:  
2                   means for decapsulating the at least one packet received from the packet-based  
3           network and containing the stimulus message.

1           47.   (Previously Presented) The apparatus of claim 34, further comprising means for  
2           encrypting the at least one packet.

1           48.   (Previously Presented) The apparatus of claim 34, further comprising means for  
2           scrambling the stimulus message before encapsulating.